Environmental Assessment

Hell Creek State Park Water Cistern Replacement and Fish Cleaning Station Septic System Upgrade

05.22.2017

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Environmental Assessment
MEPA, NEPA, MCA 23-1-110 CHECKLIST

PART I. PROPOSED ACTION DESCRIPTION

1. Type of proposed state action:

Montana State Parks (MSP), a division of Montana Fish, Wildlife and Parks (FWP), proposes two actions at Hell Creek State Park (HCSP); to upgrade the Fish Cleaning Station's wastewater treatment system and replace the existing potable water cistern with a 25,000-gallon tank.

2. Agency authority for the proposed action:

MSP has the authority to develop outdoor recreational resources in the state per 23-2-101 Montana Code Annotated (MCA): "*for the purposes of conserving the scenic, historic, archaeologic, scientific, and recreational resources of the state and providing their use and enjoyment, thereby contributing to the cultural, recreational and economic life of the people and their health."*
Statute 23-1-110 MCA and Administrative Rules of Montana (ARM) 12.2.433 guide public involvement and comment for the improvements at state parks, which this document provides. ARM 12.8.602 required the Department to consider the wishes of the public, the capacity of the site for the development, environmental impacts, long-range maintenance, protection of natural features and impacts on tourism as these elements relate to development or improvement to state parks. This document describes the proposed project in relation to this rule.

4. Anticipated Schedule:

Estimated Commencement Date: Fall 2018
Estimated Completion Date: Fall 2018
Current Status of Project Design (% complete): 5%

5. Location affected by proposed action (county, range and township – included map):

Hell Creek State Park is located approximately 25 miles north of the Town of Jordan in Garfield County, Montana. The Park is located on the Hell Creek Arm of Fort Peck Reservoir.
Fig 1. Location Map of Hell Creek State Park
Fig 2. Hell Creek State Park Map - Proposed System Upgrades

Figure 1: Location Map of Hell Creek State Park

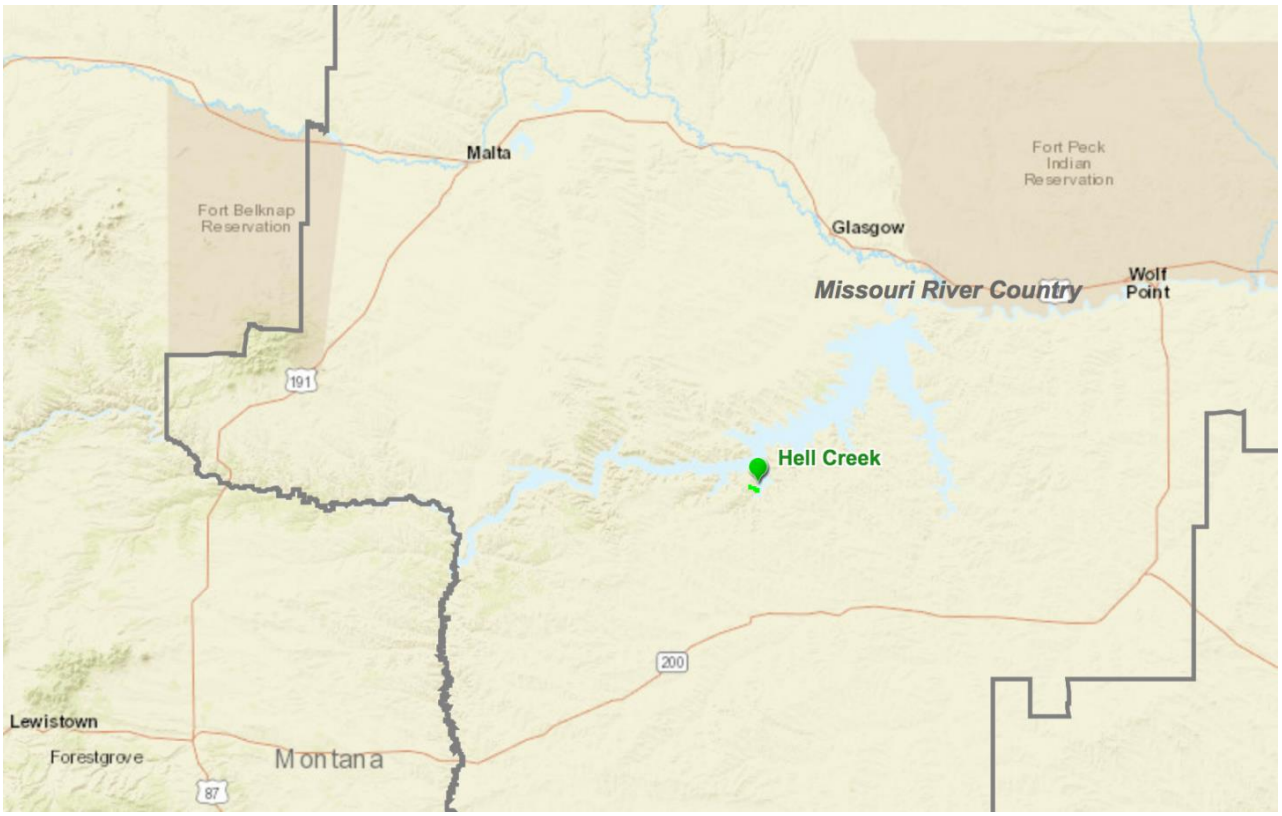
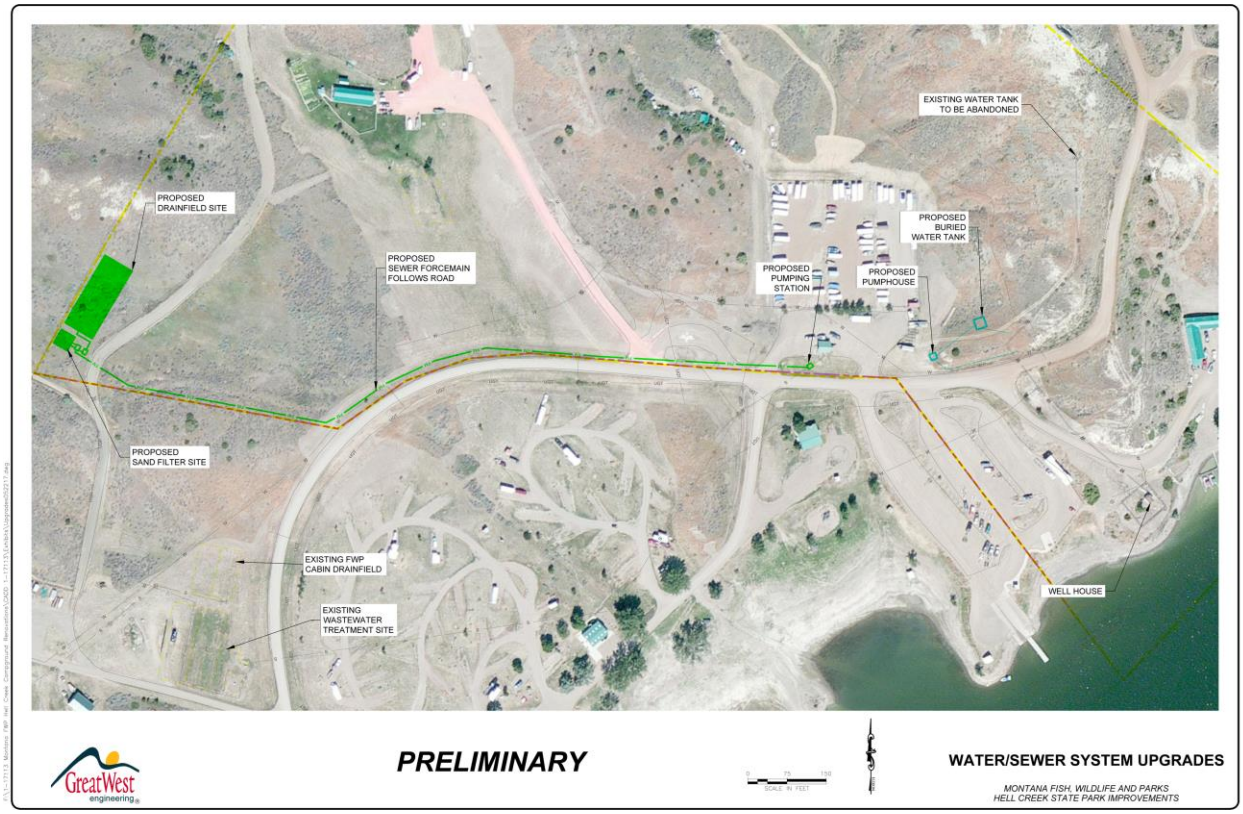


Figure 2: Hell Creek State Park Map - Proposed System Upgrades



6. Project size -- estimate the number of acres that would be directly affected that are currently:

	Acres		Acres
(a) Developed:		(d) Floodplain	0
Residential	0		
Industrial	0	(e) Productive:	
(existing shop area)		Irrigated cropland	0
(b) Open Space/	approx. 1	Dry cropland	0
Woodlands/Recreation		Forestry	0
(c) Wetlands/Riparian	0	Rangeland	0
Areas		Other	0

7. Permits, Funding & Overlapping Jurisdiction.

(a) Permits: permits will be filed during the design process.

Agency Name	Permits
US Army Corps of Engineers	Site Plan Modification
Montana DEQ	Wastewater and Public Water System

(b) Funding:

State Special = $193,000; Federal DJ = $580,000; Total = $773,000.

(c) Other Overlapping or Additional Jurisdictional Responsibilities:

Agency Name	Type of Responsibility
US Army Corps of Engineers	Landowner

8. Narrative summary of the proposed action:

Situated along the southern banks of Fort Peck Reservoir, Hell Creek State Park (HCSP) provides a full range of facilities including two boat ramps, a fish cleaning station, 71 campsites of which 44 sites take reservations during peak season, vault latrines, full-service comfort station, group use building, a marina operated by a concessionaire (Hell Creek Marina) and picnic shelters for the 26,355[1] annual visitors utilizing the park. In 2016 campsites were occupied for a total of 15,714[2] camper nights with an average stay of 3.25 nights.

In 2015, the *Hell Creek State Park Master Site & Management Plan* was created by Peaks to Plains Design, PC to develop recommendations for future expansion and campground management practices. Supplemental information was compiled by Great West Engineering in a *Facility Conditions Inventory* (FCI) report and *HCSP Potable Water and Wastewater Flow Study Report* (FSR) where areas of critical need were recognized. The two priorities listed below were

1 Montana State Parks "2016 Annual Visitation Report" (2016): p5
2 Montana State Parks "2016 Reservation Program Report" (2016): p5

identified by the reports after extensive public input, a detailed inventory and an assessment of aging park infrastructure:

1. Septic System Upgrade/Replacement of Fish Cleaning Station
2. Potable Water Supply Storage Tank Replacement

Necessity of Septic System Upgrade for the Fish Cleaning Station:

Hell Creek State Park's sanitary sewer system is composed of three existing systems. The primary public sewage system handles effluent generated from the comfort station, fish cleaning station and RV dump station [3]. Constructed in 2001[4], it was designed by Stahly Engineering to accommodate users of the electric campground's 43 designated sites. The existing system cannot accommodate the heavy use during peak weekends.

Hell Creek State Park's aging infrastructure has experienced numerous breakdowns every summer. With extremely high rates of usage, it is necessary to pump the fish cleaning station's 4000-gallon holding tank multiple times a month. The lack of frequent pumping and common closures of the fish cleaning station detracts from visitors' experiences. Montana State Parks proposes to remove the fish cleaning station from the primary septic system and provide a dedicated treatment system designed to handle the unique effluent water quality. This action would alleviate much of the burden placed on the primary septic system and allow both systems to function adequately. The final location of the proposed FCS septic system has yet to be determined on-site. (See Figure 2).

Necessity for water supply storage tank replacement:

The existing 8000-gallon metal water storage tank installed in 1993 was designed to service the campground and the concession area. However, the system cannot keep up with the demand for water which has significantly increased as a result of a new public comfort station, staff housing, an enhanced RV dump station, fish cleaning station and an increase in campground usage and park visitation[5]. *The Hell Creek State Park's 2010 Sanitary Survey* completed by Montana DEQ recommended full replacement of the water storage tank due to evidence of settlement and ground movement surrounding the existing buried water supply tank[6]. The expansive and movement-prone soils have shifted and exposed portions of the water tank. Additionally, the tank suffers from deterioration due to corrosive water as noted in both the sanitary survey and the FCI.

MSP proposes the construction of a new 25,000-gallon water tank based on the given design flows recorded by Great West Engineering[7]. The larger size

3 Peaks to Plains Design PC "Hell Creek State Park Master Site & Management Plan" (2015): p26
4 Peaks to Plains Design PC "Hell Creek State Park Master Site & Management Plan" (2015): p26
5 Peaks to Plains Design PC "Hell Creek State Park Master Site & Management Plan" (2015): p25
6 Montana DEQ "Hell Creek State Park's 2010 Sanitary Survey" (2010)
7 GreatWest Engineering "Hell Creek State Park Potable Water & Wastewater Flow Study Report" (2016): p5

would provide nearly two days of storage at the projected visitor demands and minimize closures of favorite amenities. The new water storage tank's capacity will allow the concessionaire to connect to and utilize the park's public water supply system as required for a public water supply as determined by the Montana Department of Environmental Quality..

9. Description and analysis of reasonable alternatives:

Alternative A: No Action

If no action is taken, the existing water storage tank and primary septic system have a high likelihood of failure in the next two years[8]. Given the continued increase in visitation, park staff will continue the trend of spending operations monies and FTE man hours repairing and troubleshooting continuous breakdowns until one or both of the water tank and primary septic system experience complete failure. HCSP operates as a general services campground as per ARM 37.111.2. Allowing the regulated sanitary sewer disposal (ARM 37.111.217.) and potable water systems (ARM 37.111.206) to fail would be a violation of these rules. Funding allocated for this project would likely be reallocated to project needs at parks in other locations.

Alternative B: Proposed Action (Preferred)

The preferred course of action is twofold:

1. Replace and relocate the existing 8,000-gallon potable water tank with a 25,000-gallon storage tank. The preferred location of the proposed buried water tank is noted in Figure 2. The lower elevation and flatter ground slope would minimize the potential for ground movement. A small pump station, with pressure tanks, would be required to maintain system pressures. The proposed elevation would still allow gravity water supply to the Park, in the event the pump station encountered failure. In addition, this alternative would provide a backup power generator to safeguard the water system. This alternative provides easy access from park roads and requires minimal piping underground, enabling ease of maintenance by HCSP staff in areas prone to land movement. The environmental impacts of this preferred action are minimal.
2. Remove the fish cleaning station from the primary septic system and construct a dedicated treatment system designed to handle the unique quality of the water effluent. The final location of the septic system upgrade is noted in Figure 2. Environmental impacts of this action are minimal.

10. Evaluation and listing of mitigation, stipulation, or other control measures enforceable by the agency or another government agency:

None**.**

[8] GreatWest Engineering "Hell Creek State Park Potable Water & Wastewater Flow Study Report" (2016): p6

PART II. ENVIRONMENTAL REVIEW CHECKLIST

Evaluation of the impacts of the Proposed Action including secondary and cumulative impacts on the Physical and Human Environment.

A. PHYSICAL ENVIRONMENT

1. LAND RESOURCES Will the proposed action result in:	IMPACT					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Soil instability or changes in geologic substructure?		x				
b. Disruption, displacement, erosion, compaction, moisture loss, or over-covering of soil, which would reduce productivity or fertility?		x				
c. Destruction, covering or modification of any unique geologic or physical features?		x				
d. Changes in siltation, deposition or erosion patterns that may modify the channel of a river or stream or the bed or shore of a lake?		x				
e. Exposure of people or property to earthquakes, landslides, ground failure, or other natural hazard?		x				

2. AIR Will the proposed action result in:	IMPACT					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Emission of air pollutants or deterioration of ambient air quality? (Also see 13 (c).)		x				
b. Creation of objectionable odors?		x				
c. Alteration of air movement, moisture, or temperature patterns or any change in climate, either locally or regionally?		x				
d. Adverse effects on vegetation, including crops, due to increased emissions of pollutants?		x				

e. For P-R/D-J projects, will the project result in any discharge, which will conflict with federal or state air quality regulations? (Also see 2a.)		x				

3. WATER **Will the proposed action result in:**	**IMPACT**					
	Unknown	**None**	**Minor**	**Potentially Significant**	**Can Impact Be Mitigated**	**Comment Index**
a. Discharge into surface water or any alteration of surface water quality including but not limited to temperature, dissolved oxygen or turbidity?		x				
b. Changes in drainage patterns or the rate and amount of surface runoff?		x				
c. Alteration of the course or magnitude of floodwater or other flows?		x				
d. Changes in the amount of surface water in any water body or creation of a new water body?		x				
e. Exposure of people or property to water related hazards such as flooding?		x				
f. Changes in the quality of groundwater?		x				
g. Changes in the quantity of groundwater?		x				
h. Increase in risk of contamination of surface or groundwater?		x				
i. Effects on any existing water right or reservation?		x				
j. Effects on other water users as a result of any alteration in surface or groundwater quality?		x				
k. Effects on other users as a result of any alteration in surface or groundwater quantity?		x				
l. For P-R/D-J, will the project affect a designated floodplain? (Also see 3c.)		x				
m. For P-R/D-J, will the project result in any discharge that will affect federal or state water quality regulations? (Also see 3a.)		x				

4. VEGETATION **Will the proposed action result in?**	**IMPACT**					
	Unknown	**None**	**Minor**	**Potentially Significant**	**Can Impact Be Mitigated**	**Comment Index**
a. Changes in the diversity, productivity or abundance of plant species (including trees, shrubs, grass, crops, and aquatic plants)?		x				
b. Alteration of a plant community?		x				
c. Adverse effects on any unique, rare, threatened, or endangered species?		x				
d. Reduction in acreage or productivity of any agricultural land?		x				
e. Establishment or spread of noxious weeds?		x				
f. For P-R/D-J, will the project affect wetlands, or prime and unique farmland?		x				
g. Other:						

5. FISH/WILDLIFE **Will the proposed action result in:**	**IMPACT**					
	Unknown	**None**	**Minor**	**Potentially Significant**	**Can Impact Be Mitigated**	**Comment Index**
a. Deterioration of critical fish or wildlife habitat?		x				
b. Changes in the diversity or abundance of game animals or bird species?		x				
c. Changes in the diversity or abundance of nongame species?		x				
d. Introduction of new species into an area?		x				
e. Creation of a barrier to the migration or movement of animals?		x				
f. Adverse effects on any unique, rare, threatened, or endangered species?		x				
g. Increase in conditions that stress wildlife populations or limit abundance (including harassment, legal or illegal harvest or other human activity)?		x				

h. For P-R/D-J, will the project be performed in any area in which T&E species are present, and will the project affect any T&E species or their habitat? (Also see 5f.)		x				
i. For P-R/D-J, will the project introduce or export any species not presently or historically occurring in the receiving location? (Also see 5d.)		x				

B. HUMAN ENVIRONMENT

6. NOISE/ELECTRICAL EFFECTS **Will the proposed action result in:**	**IMPACT**					
	Unknown	**None**	**Minor**	**Potentially Significant**	**Can Impact Be Mitigated**	**Comment Index**
a. Increases in existing noise levels?		x				
b. Exposure of people to serve or nuisance noise levels?		x				
c. Creation of electrostatic or electromagnetic effects that could be detrimental to human health or property?		x				
d. Interference with radio or television reception and operation?		x				

7. LAND USE **Will the proposed action result in:**	**IMPACT**					
	Unknown	**None**	**Minor**	**Potentially Significant**	**Can Impact Be Mitigated**	**Comment Index**
a. Alteration of or interference with the productivity or profitability of the existing land use of an area?		x				
b. Conflicted with a designated natural area or area of unusual scientific or educational importance?		x				
c. Conflict with any existing land use whose presence would constrain or potentially prohibit the proposed action?		x				
d. Adverse effects on or relocation of residences?		x				

8. RISK/HEALTH HAZARDS **Will the proposed action result in:**	**IMPACT**					
	Unknown	**None**	**Minor**	**Potentially Significant**	**Can Impact Be Mitigated**	**Comment Index**
a. Risk of an explosion or release of hazardous substances (including, but not limited to oil, pesticides, chemicals, or radiation) in the event of an accident or other forms of disruption?		x				.
b. Affect an existing emergency response or emergency evacuation plan, or create a need for a new plan?		x				
c. Creation of any human health hazard or potential hazard?		x				
d. For P-R/D-J, will any chemical toxicants be used? (Also see 8a)		x				

9. COMMUNITY IMPACT **Will the proposed action result in:**	**IMPACT**					
	Unknown	**None**	**Minor**	**Potentially Significant**	**Can Impact Be Mitigated**	**Comment Index**
a. Alteration of the location, distribution, density, or growth rate of the human population of an area?		x				
b. Alteration of the social structure of a community?		x				
c. Alteration of the level or distribution of employment or community or personal income?		x				
d. Changes in industrial or commercial activity?		x				
e. Increased traffic hazards or effects on existing transportation facilities or patterns of movement of people and goods?		x				

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10. PUBLIC SERVICES/TAXES/UTILITIES **Will the proposed action result in:**	**IMPACT**					
	Unknown	**None**	**Minor**	**Potentially Significant**	**Can Impact Be Mitigated**	**Comment Index**
a. Will the proposed action have an effect upon or result in a need for new or altered governmental services in any of the following areas: fire or police protection, schools, parks/recreational facilities, roads or other public maintenance, water supply, sewer or septic systems, solid waste disposal, health, or other governmental services? If any, specify:		x				10.a.
b. Will the proposed action have an effect upon the local or state tax base and revenues?		x				
c. Will the proposed action result in a need for new facilities or substantial alterations of any of the following utilities: electric power, natural gas, other fuel supply or distribution systems, or communications?		x				
d. Will the proposed action result in increased use of any energy source?			x			10.d.
e. Define projected revenue sources						
f. Define projected maintenance costs.						

10.a. The effects will be positive in nature as the project resolves current Health and Safety issues.
10.d. The proposed action will result in an increase of electricity usage.

11. AESTHETICS/RECREATION **Will the proposed action result in:**	**IMPACT**					
	Unknown	**None**	**Minor**	**Potentially Significant**	**Can Impact Be Mitigated**	**Comment Index**
a. Alteration of any scenic vista or creation of an aesthetically offensive site or effect that is open to public view?		x				
b. Alteration of the aesthetic character of a community or neighborhood?		x				
c. Alteration of the quality or quantity of recreational/tourism opportunities and settings? (Attach Tourism Report.)		x				
d. For P-R/D-J, will any designated or proposed wild or scenic rivers, trails or wilderness areas be impacted? (Also see 11a, 11c.)		x				

12. CULTURAL/HISTORICAL RESOURCES **Will the proposed action result in:**	IMPACT					
	Unknown	**None**	**Minor**	**Potentially Significant**	**Can Impact Be Mitigated**	**Comment Index**
a. Destruction or alteration of any site, structure or object of prehistoric historic, or paleontological importance?		x				
b. Physical change that would affect unique cultural values?		x				
c. Effects on existing religious or sacred uses of a site or area?		x				
d. For P-R/D-J, will the project affect historic or cultural resources? Attach SHPO letter of clearance. (Also see 12.a.)		x				

SIGNIFICANCE CRITERIA

13. SUMMARY EVALUATION OF SIGNIFICANCE **Will the proposed action, considered as a whole:**	IMPACT					
	Unknown	**None**	**Minor**	**Potentially Significant**	**Can Impact Be Mitigated**	**Comment Index**
a. Have impacts that are individually limited, but cumulatively considerable? (A project or program may result in impacts on two or more separate resources that create a significant effect when considered together or in total.)		x				
b. Involve potential risks or adverse effects, which are uncertain but extremely hazardous if they were to occur?		x				
c. Potentially conflict with the substantive requirements of any local, state, or federal law, regulation, standard or formal plan?		x				
d. Establish a precedent or likelihood that future actions with significant environmental impacts will be proposed?		x				
e. Generate substantial debate or controversy about the nature of the impacts that would be created?		x				
f. For P-R/D-J, is the project expected to have organized opposition or generate substantial public controversy? (Also see 13e.)		x				

g. For P-R/D-J, list any federal or state permits required.						13.g.

13.g. Permits listed above in section 7.

PART III. NARRATIVE EVALUATION AND COMMENT

The proposed action is not expected to have negative cumulative effects on the physical and/or human environments.

Montana State Parks will fulfill its public safety duties by greatly reducing and terminating reoccurring septic overflows. By reducing health and safety concerns related to objectionable sights and smells of the fish cleaning station and increasing the supply of potable water, these improvements will contribute positively to the overall user experience at Hell Creek State Park. This project also complies with the long-range goals of MSP by raising park standards and having code compliant infrastructure through the provision of quality and diverse recreational experiences, which meets the Parks' Program Outcomes of protection and enhancement of public resources.

PART IV. PUBLIC PARTICIPATION

1. Public involvement:

The public will be notified in the following manners to comment on this current EA, the proposed action and alternatives:
Two public notices in each of these papers: Jordan Tribune, Billings Gazette, Helena IR, Miles City Star, Lewistown News-Argus.
Statewide press releases will be issued in addition to public notices on the Montana State Parks web page: *http://stateparks.mt.gov*.

2. Duration of comment period:

The public comment period will extend for (30) thirty days. Written comments will be accepted until 5:00 p.m., Thursday, July 13, 2017 and can be mailed or emailed to the addresses below:

Hell Creek State Park Facility Improvements
Hell Creek State Park
PO Box 102
Jordan, MT 59337

Email: mmatheson@mt.gov

PART V. EA PREPARATION

1. Based on the significance criteria evaluated in this EA, is an EIS required? (YES/NO)? No

Based on an evaluation of impacts to the physical and human environment under MEPA, this environmental review revealed no significant negative impacts from the proposed action; therefore an EIS is not necessary and an environmental assessment is the appropriate level of analysis in determining the significance of impacts.

2. Person(s) responsible for preparing the EA:

Marina Matheson, Park Manager
Hell Creek State Park
P.O. Box 102
Jordan, MT 59337
406-557-2362

3. List of agencies or offices consulted during preparation of the EA:

1. Great West Engineering
2. US Army Corps of Engineers

APPENDIX A

23-1-110 MCA
PROJECT QUALIFICATION CHECKLIST

Date: 01/01/2017 **Person Reviewing:** Marina Matheson

Project Location: Hell Creek State Park

Description of Proposed Work:
The following checklist is intended to be a guide for determining whether a proposed development or improvement is of enough significance to fall under 23-1-110 rules.

[ ] A. New roadway or trail built over undisturbed land?
Comments*: No, proposed roadway over existing fire break*

[ ] B. New building construction (buildings <100 sf and vault latrines exempt)?
Comments*: No, proposed building to be <100sf*

[✓] C. Any excavation of 20 c.y. or greater?
Comments*: Yes*

[ ] D. New parking lots built over undisturbed land or expansion of existing lot that increases parking capacity by 25% or more?
Comments*: No*

[ ] E. Any new shoreline alteration that exceeds a doublewide boat ramp or handicapped fishing station?
Comments*: No*

[ ] F. Any new construction into lakes, reservoirs, or streams?
Comments*: No*

[ ] G. Any new construction in an area with National Registry quality cultural artifacts (as determined by State Historical Preservation Office)?
Comments*: No*

[ ] H. Any new above ground utility lines?
Comments*: No*

[ ] I. Any increase or decrease in campsites of 25% or more of an existing number of campsites?
Comments*: No*

[ ] J. Proposed project significantly changes the existing features or use pattern; including effects of a series of individual projects?
Comments*: No*